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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/889,269

03/05/2002

Tadahiro Ohmi

8075-1055

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466 7590 10/01/2008

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/889,269	<b>Applicant(s)</b> OHMI ET AL.	
	<b>Examiner</b> ALICIA CHEVALIER	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5,6,9,13-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,6,9,13-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **RESPONSE TO AMENDMENT**

### ***Request for Continued Examination***

1. The Request for Continued Examination (RCE) under 37 CFR 1.53 (d) filed on July 21, 2008 is acceptable and a RCE has been established. An action on the RCE follows.
2. Claims 5, 6, 9, 13-16 and 18-21 are pending in the application, claims 1-4, 7, 8, 10-12 and 17 have been cancelled.
3. Amendments to the claims, filed on July 21, 2008, have been entered in the above-identified application.

### ***REJECTIONS***

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

### ***Claim Rejections - 35 USC § 103***

5. Claims 5, 6, 9, 14-16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carbo et al. (U.S. Patent No. 4,507,339) in view of Uchida et al. (U.S. Patent No. 4,248,676).

Carbo discloses a structure, article comprising a metallic material with a matte surface (*col. 4, lines 64-67*) and a chromium-oxide passivation film (*chromium/chromium oxide surface treatment*) disposed on the metallic material surface (*col. 2, lines 20-23*).

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Carbo fails to disclose that the matte surface of the metallic material has a surface roughness (Ra) not more than 1.5  $\mu\text{m}$  or that the passivation film has pin holes which are filled..

Uchida discloses a steel plate that is passivated and made corrosion resistant with a chromium layer having pin holes which are filled in/sealed (*figure 5, col. 6, lines 14-29*). The filled pin holes prevent crack formations during general processing (*col. 10, lines 26-30*). The surface roughness of the matte finished initial steel plate is 0.8-3  $\mu\text{m}$  (*col. 10, lines 63-65*). The metallic body surface is deemed to define a continuous boundary between the metallic body and the chromium-oxide deposit.

The exact surface roughness of the metallic material is deemed to be a result effective variable with regard to the adherence of the coating. It would require routine experimentation to determine the optimum value of a result effective variable, such as surface roughness, in the absence of a showing of criticality in the claimed surface roughness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated by Uchida to have a surface roughness of 0.8-3  $\mu\text{m}$  in order to achieve a metallic matte surface.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have filed pin holes in the passivation film of Carbo as taught by Uchida in order to prevent crack formations during general processing.

The limitation “formed by heating a chromium film coated directly onto the metallic material surface in an oxidizing atmosphere” is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless

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Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, there does not appear to be a difference between the prior art structure and the structure resulting from the claimed method because Carbo discloses a chromium-oxide passivation film on the metallic body.

6. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carbo in view of Uchida as applied above, and further in view of Ohmi (US Patent No. 5,656,099).

Carbo and Uchida are relied upon as described above.

Carbo and Uchida fail to disclose that the chromium-oxide deposit consists, i.e. substantially 100% chromium-oxide, of chromium-oxide.

Ohmi discloses a metallic material provided with a chromium oxide passivation film comprising a passivation film consisting of chromium oxide on the metallic material (*col. 2, lines 33-45*). Ohmi further discloses that the improved corrosion resistant properties have been obtained through the use of passivation films consisting of chromium oxide (*col. 2, lines 24-38*).

It would have been obvious to one of ordinary skill in the art to use a chromium oxide as the passivation film in the combination of Carbo and Uchida as taught by Ohmi because of the improved corrosion resistance gained by layer consisting only of chromium oxide.

***ANSWERS TO APPLICANT'S ARGUMENTS***

7. Applicant's arguments in the response filed July 21, 2008 regarding the 35 U.S.C. 103 rejection over Carbo in view of Uchida of record have been carefully considered but are deemed unpersuasive.

Applicant argues that there is no suggestion that "a surface (Ra) being not more than 1.5  $\mu\text{m}$ " would have been preferred. Applicant further adds Carbo implicitly teaches away from utilizing a matte surface treatment on a steel substrate.

The examiner is unclear how Carbo teaches away from utilizing a matte surface treatment on a steel substrate. In column 1, lines 66-68 Carbo explicitly teaches "that the method of the present invention is equally applicable to tinplated ferrous metal and tin-free, low carbon sheet steel." Clearly Carbo teaches utilizing a steel substrate. Furthermore, Applicant has not shown criticality in claimed surface roughness.

Applicant argues that Carbo does not disclose pin holes in the chromium/chromium oxide layer.

The examiner has already conceded this in the rejection. As taught by Uchida pin holes are created while making the chromium oxide passivation film. Therefore, it would have been obvious that Carbo would have pin holes and one of ordinary skill in the art at the time of the invention to have filed pin holes in the passivation film of Carbo as taught by Uchida in order to prevent crack formations during general processing.

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***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alicia Chevalier/  
Primary Examiner, Art Unit 1794  
10/1/2008